



## **Bureau of Air Quality Conditional Major Operating Permit**

**Insurance Institute for Business and Home Safety  
5335 Richburg Road  
Chester, South Carolina 29729  
Chester County**

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5), 48-1-100(A), and 48-1-110(a), the 1976 Code of Laws of South Carolina, as amended, and South Carolina Regulation 61-62, Air Pollution Control Regulations and Standards, the Bureau of Air Quality authorizes the operation of this facility and the equipment specified herein in accordance with valid construction permits, and the plans, specifications, and other information submitted in the operating permit request received on September 30, 2015, as amended. All official correspondence, plans, permit applications and written statements are an integral part of the permit. Any false information or misrepresentation in the application for a construction or operating permit may be grounds for permit revocation.

The operation of this facility is subject to and conditioned upon the terms, limitations, standards, and schedules contained herein or as specified by this permit and its accompanying attachments.

**Permit Number: CM-0640-0067**

**Issue Date: June 28, 2016**  
**Expiration Date: June 30, 2021**

**Effective Date: July 1, 2016**  
**Renewal Due Date: March 31, 2021**

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**Steve McCaslin, P. E., Director  
Air Permitting Division  
Bureau of Air Quality**

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RECORD OF REVISIONS	
Date	Description of Changes
DRAFT	C.4, C.5, C.6, C.9 - Removed conditions. C.8 - Added < 250.0 TPY PM to existing synthetic minor limit condition. C.10 - Created recordkeeping condition for modeled rates. Attachment - Removed Std. 8 pollutants with no established maximum allowable concentration. Updated to latest template.

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## A. EMISSION UNIT DESCRIPTION

Emission Unit ID	Emission Unit Description
01	Wildfire Simulation Process (WSP) with an inherent to process Water Spray System (WS1)

## B. EQUIPMENT AND CONTROL DEVICE(S)

### B.1 EQUIPMENT FOR EMISSION UNIT 01 – WILDFIRE SIMULATION PROCESS

Equipment ID	Equipment Description	Installation/Modification Date	Control Device ID	Emission Point ID
NGB1- NGB7	Seven – 0.99 million Btu/hr Natural Gas Burners	December 2013	None	WFS1
NGB8 - NGB10	Three - 0.99 million Btu/hr Natural Gas Burners	October 2015	None	WFS1
Ember1 - Ember7	Seven – 5 lb wood chip/minute Ember Generators	December 2013	None	WFS1
Ember8 - Ember10	Three – 5 lb wood chip/minute Ember Generators	October 2015	None	WFS1
MT	Materials Testing, with associated structures and inherent Water Curtain/Spray System	September 2010	None	WFS1

## C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
C.1	<p><b>Emission Unit ID:</b> All <b>Equipment ID:</b> All <b>Control Device ID:</b> All</p> <p>(S.C. Regulation 61-62.1, Section II.J.1.g) A copy of the Department issued construction and/or operating permit must be kept readily available at the facility at all times. The owner or operator shall maintain such operational records; make reports; install, use, and maintain monitoring equipment or methods; sample and analyze emissions or discharges in accordance with prescribed methods at locations, intervals, and procedures as the Department shall prescribe; and provide such other information as the Department reasonably may require. All records required to demonstrate compliance with the limits established under this permit shall be maintained on site for a period of at least 5 years from the date the record was generated and shall be made available to a Department</p>

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## C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions				
	representative upon request.				
C.2	<p><b>Emission Unit ID:</b> All <b>Equipment ID:</b> All</p> <p>(S.C. Regulation 61-62.5, Standard No. 4, Section IX) Where construction or modification began after December 31, 1985, emissions from these sources (including fugitive emissions) shall not exhibit an opacity greater than 20%.</p>				
C.3	<p><b>Emission Unit ID:</b> All <b>Equipment ID:</b> All</p> <p>(S.C. Regulation 61-62.5, Standard No. 4, Section VIII) Particulate matter emissions from a process shall be limited to the rate specified by use of the following equations:</p> <p>1) when process weight rates are less than or equal to 30 tons per hour:  <math display="block">E = (F) 4.10P^{0.67}</math></p> <p>or 2) when process weight rates are greater than 30 tons per hour:  <math display="block">E = (F) 55.0P^{0.11} - 40</math></p> <p>where E = the allowable emission rate in pounds per hour, P = process weight rate in tons per hour, and F = effect factor from Table B in S.C. Regulation 61-62.5, Standard No. 4. For the purposes of compliance with this condition, the process boundaries are defined as follows:</p> <table border="1"> <thead> <tr> <th>Process/ Equipment IDs</th><th>Max. Process Weight Rate (tons/hr)</th></tr> </thead> <tbody> <tr> <td>Wildfire Simulation Process</td><td>21.83</td></tr> </tbody> </table>	Process/ Equipment IDs	Max. Process Weight Rate (tons/hr)	Wildfire Simulation Process	21.83
Process/ Equipment IDs	Max. Process Weight Rate (tons/hr)				
Wildfire Simulation Process	21.83				
C.4	RESERVED				
C.5	RESERVED				
C.6	RESERVED				
C.7	<p><b>Emission Unit ID:</b> Facility-Wide <b>Equipment ID:</b> Facility Wide</p> <p>(S.C. Regulation 61-62.6) Fugitive particulate matter (PM) emissions from material handling, process equipment, or storage piles will be minimized to the maximum extent possible. Fugitive emissions from dust buildup will be controlled by proper housekeeping and/or wet suppression.</p>				
C.8	<p><b>Emission Unit ID:</b> Facility-Wide <b>Equipment ID:</b> Facility-Wide</p> <p>(S.C. Regulation 61-62.1, Section II.E.; S.C. Regulation 61-62.1, Section II.G.) This facility is a potential major source for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, and hazardous air pollutants (HAP) emissions. The facility has agreed to federally enforceable operating limitations to limit its potential to emit to less than 10.0 tons per year for any single HAP and 25.0 tons per year for any combination of HAP</p>				

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## C. LIMITATIONS, MONITORING AND REPORTING CONDITIONS

Condition Number	Conditions
	<p>emissions, less than 100.0 tons per year for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emissions, and less than 250.0 tons per year for PM and CO emissions to avoid MACT, Title V, and PSD.</p> <p>The owner/operator shall maintain all records necessary to determine facility wide PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, and hazardous air pollutants (HAP) emissions. PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, and hazardous air pollutants (HAP) emissions shall be calculated on a monthly basis, and a twelve month rolling sum shall be calculated for total PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, and hazardous air pollutants (HAP) emissions. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve-month rolling sums shall be less than 10.0 tons for any single HAP and 25.0 tons for any combination of HAP emissions, less than 100.0 tons for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emissions, and less than 250.0 tons for PM and CO emissions. Reports of the calculated values and the twelve-month rolling sums, calculated for each month in the reporting period, shall be submitted semiannually.</p>
C.9	RESERVED
C.10	<p><b>Emission Unit ID:</b> Facility-Wide <b>Equipment ID:</b> Facility-Wide</p> <p>The owner/operator shall maintain all records necessary to demonstrate facility wide emissions of the pollutants listed in Attachment - Emission Rates for Ambient Air Standards of this permit. These emissions shall be calculated on a monthly basis. The calculated emission rates shall be less than those listed in Attachment - Emission Rates for Ambient Air Standards of this permit. These records shall be kept on-site.</p>

## D. NESHAP PERIODIC REPORTING SCHEDULE SUMMARY

NESHAP Part	NESHAP Subpart	Compliance Monitoring Report Submittal Frequency	Reporting Period	Report Due Date
63	<p>ZZZZ (Emergency Engines see note 3 and 4)</p>	N/A	N/A	N/A

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1. This table summarizes only the periodic compliance reporting schedule. Additional reports may be required. See specific NESHAP Subpart for additional reporting requirements and associated schedule.
2. This reporting schedule does not supersede any other reporting requirements including but not limited to 40 CFR Part 60, 40 CFR Part 61, 40 CFR Part 63, and/or Title V. The MACT reporting schedule may be adjusted to coincide with the Title V reporting schedule with prior approval from the Department in accordance with 40 CFR 63.10(a)(5). This request may be made 1 year after the compliance date for the associated MACT standard.
3. Facilities with emergency engines are not required to submit reports. Only facilities with non-emergency engines are required to submit semiannual reports.
4. Facilities with emergency engines shall comply with the operations limits specified in 40 CFR 63.6640(f).

## E. NESHAP - CONDITIONS

Condition Number	Conditions
E.1	All NESHAP notifications and reports shall be sent to the Manager of the Air Toxics Section, South Carolina Department of Health and Environmental Control - Bureau of Air Quality.
E.2	All NESHAP notifications and the cover letter to periodic reports shall be sent to the United States Environmental Protection Agency (US EPA) at the following address or electronically as required by the specific subpart:  <b>US EPA, Region 4 Air, Pesticides and Toxics Management Division 61 Forsyth Street SW Atlanta, GA 30303</b>
E.3	Emergency power generators less than or equal to 150 kilowatt (kW) rated capacity or greater than 150 kW rated capacity designated for emergency use only and operated a total of 500 hours per year or less for testing and maintenance with a method to record the actual hours of use such as an hour meter have been determined to be exempt from construction permitting requirements in accordance with South Carolina Regulation 61-62.1. These sources shall still comply with the requirements of all applicable regulations including but not limited to the following:  New Source Performance Standards (NSPS) 40 CFR 60 Subpart A (General Provisions); NSPS 40 CFR 60 Subpart IIII (Stationary Compression Ignition Internal Combustion Engines); NSPS 40 CFR 60 Subpart JJJJ (Stationary Spark Ignition Internal Combustion Engines); National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart A (General Provisions); and NESHAP 40 CFR 63 Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines).

## F. PERMIT FLEXIBILITY

Condition Number	Conditions
F.1	The facility may install exempt sources as allowed in S.C. Regulation 61-62.1, Section II.B, without

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## F. PERMIT FLEXIBILITY

Condition Number	Conditions
	revising or reopening the operating permit. The addition of these sources is allowed without a construction permit except when the activity triggers a new operating permit status (i.e. does not potentially subject the facility to the Title V operating permit program) and/or any activity triggers major source or synthetic minor permitting requirements. A list of exempt sources must be maintained on site, along with any necessary documentation to support the determination that the source is exempt, and shall be made available to a Department representative upon request. The list and necessary documentation shall be submitted with the next renewal application. Emissions from these sources shall be reflected in the facility-wide emissions tabulation in any subsequent construction permit application.

## G. AMBIENT AIR STANDARDS REQUIREMENTS

Condition Number	Conditions
G.1	<p>Air dispersion modeling (or other method) has demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal ambient air standard. Any changes in the parameters used in this demonstration may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. The emission rates used in the determination are listed in Attachment - Emission Rates for Ambient Air Standards of this permit. Higher emission rates may be administratively incorporated into Attachment - Emission Rates for Ambient Air Standards of this permit provided a demonstration using these higher emission rates shows the attainment and maintenance of any state or federal ambient air quality standard or with any other applicable requirement. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded.</p> <p>The owner/operator shall maintain this facility at or below the emission rates as listed in Attachment - Emission Rates for Ambient Air Standards, not to exceed the pollutant limitations of this permit. Should the facility wish to increase the emission rates listed in Attachment - Emission Rates for Ambient Air Standards, not to exceed the pollutant limitations in the body of this permit, it may do so by the administrative process specified above. This is a State Only enforceable requirement.</p>

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## H. PERIODIC REPORTING SCHEDULE

Compliance Monitoring Report Submittal Frequency	Reporting Period (Begins on the effective date of the permit)	Report Due Date
Quarterly	January-March April-June July-September October-December	April 30 July 30 October 30 January 30
Semiannual	January-June April-September July-December October-March	July 30 October 30 January 30 April 30
Annual	January-December April-March July-June October-September	January 30 April 30 July 30 October 30

Note: This reporting schedule does not supersede any federal reporting requirements including but not limited to 40 CFR Part 60, 40 CFR Part 61, and 40 CFR Part 63. All federal reports must meet the reporting time frames specified in the federal standard unless the Department or EPA approves a change.

## I. REPORTING CONDITIONS

Condition Number	Conditions
I.1	Reporting required in this permit, shall be submitted in a timely manner as directed in the Periodic Reporting Schedule of this permit.
I.2	All reports and notifications required under this permit shall be submitted to the person indicated in the specific condition at the following address: <b>2600 Bull Street</b> <b>Columbia, SC 29201</b> The contact information for the local Environmental Affairs Regional office can be found at: <b><a href="http://www.scdhec.gov">http://www.scdhec.gov</a></b>
I.3	Unless elsewhere specified within this permit, all reports required under this permit shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality.
I.4	(S.C. Regulation 61-62.1, Section II.J) For sources not required to have continuous emissions monitors, any malfunction of air pollution control equipment or system, process upset or other equipment failure which results in discharges of air contaminants lasting for one hour or more and which are greater than those discharges described for normal operation in the permit application shall be reported to the Department's local Environmental Affairs Regional office within 24 hours after the beginning of the occurrence.  The owner/operator shall also submit a written report within 30 days of the occurrence. This report shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality and



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## I. REPORTING CONDITIONS

Condition Number	Conditions
	<p>shall include, at a minimum, the following:</p> <ol style="list-style-type: none"><li>1. The identity of the stack and/or emission point where the excess emissions occurred;</li><li>2. The magnitude of excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the excess emissions;</li><li>3. The time and duration of excess emissions;</li><li>4. The identity of the equipment causing the excess emissions;</li><li>5. The nature and cause of such excess emissions;</li><li>6. The steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction;</li><li>7. The steps taken to limit the excess emissions; and,</li><li>8. Documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions.</li></ol>

## J. GENERAL CONDITIONS

Condition Number	Conditions
J.1	The owner or operator shall comply with S.C. Regulation 61-62.2 "Prohibition of Open Burning."
J.2	The owner or operator shall comply with S.C. Regulation 61-62.3 "Air Pollution Episodes."
J.3	The owner or operator shall comply with S.C. Regulation 61-62.4 "Hazardous Air Pollution Conditions."
J.4	This permit only covers emission units and control equipment while physically present at the indicated facility. Unless the permit specifically provides for the equipment relocation, this permit is void for an item of equipment on the day it is removed from the permitted facility, notwithstanding the expiration date specified on the permit.
J.5	The permittee shall pay permit fees to the Department in accordance with the requirements of S.C. Regulation 61-30, Environmental Protection Fees.
J.6	<p>In the event of an emergency, as defined in S.C. Regulation 61-62.1, Section II.L, the owner or operator may document an emergency situation through properly signed, contemporaneous operating logs, and other relevant evidence that verify:</p> <ol style="list-style-type: none"><li>1. An emergency occurred, and the owner or operator can identify the cause(s) of the emergency;</li><li>2. The permitted source was at the time the emergency occurred being properly operated;</li><li>3. During the period of the emergency, the owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and</li><li>4. The owner or operator gave a verbal notification of the emergency to the Department within 24 hours of the time when emission limitations were exceeded, followed by a written report within 30 days. The written report shall include, at a minimum, the information required by</li></ol>

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## J. GENERAL CONDITIONS

Condition Number	Conditions
	<p>S.C. Regulation 61-62.1, Section II.J.1.c.i through viii. The written report shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.</p> <p>This provision is in addition to any emergency or upset provision contained in any applicable requirement.</p>
J.7	<p>(S.C. Regulation 61-62.1, Section II.O) Upon presentation of credentials and other documents as may be required by law, the owner or operator shall allow the Department or an authorized representative to perform the following:</p> <ol style="list-style-type: none"><li>1. Enter the facility where emissions-related activity is conducted, or where records must be kept under the conditions of the permit.</li><li>2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.</li><li>3. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.</li><li>4. As authorized by the Federal Clean Air Act and/or the S.C. Pollution Control Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.</li></ol>

## K. PERMIT RENEWAL, MODIFICATION, EXPIRATION AND TRANSFER OF OWNERSHIP

Condition Number	Conditions
K.1	<p>This permit may be reopened by the Department for cause or to include any new standard or regulation which becomes applicable to a source during the life of the permit.</p>
K.2	<p>This permit may be modified by the Department for cause, to include any applicable requirement or to add or alter a permit's expiration date.</p>
K.3	<p>(S.C. Regulation 61-62.1, Section II.M) Within 30 days of the transfer of ownership/operation of a facility, the current permit holder and prospective new owner or operator shall submit to the Director of Air Permitting a written request for transfer of the source operating or construction permits. The written request for transfer of the source operating or construction permit shall include any changes pertaining to the facility name and mailing address; the name, mailing address, and telephone number of the owner or operator for the facility; and any proposed changes to the permitted activities of the source. Transfer of the operating or construction permits will be effective upon written approval by the Department.</p>
K.4	<p>(S.C. Regulation 61-62.1, Section II.H) The owner or operator shall submit an operating permit renewal request to the Department within 90 days prior to the operating permit expiration date. The operating permit renewal requests shall include a description of any changes at the facility that have occurred since issuance of the last operating permit that may affect the operating permit or operating permit review. In general, the description shall include any addition, alteration or removal of sources, including sources exempt from construction permit requirements; addition, alteration or removal of</p>

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**K. PERMIT RENEWAL, MODIFICATION, EXPIRATION AND TRANSFER OF OWNERSHIP**

Condition Number	Conditions
	emission limitations; any changes to monitoring, recordkeeping, or reporting requirements; and any changes or additions to special permit conditions.
K.5	Submission of a request for renewal meeting the requirements in S.C. Regulation 61-62.1, Section II.H, shall allow the owner or operator to continue operating pursuant to the most recent operating permit, until such time as the Department has taken final action on the request for renewal.

## ATTACHMENT - Emission Rates for Ambient Air Standards

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The emission rates listed herein are not considered enforceable limitations but are used to evaluate ambient air quality impact. Until the Department makes a determination that a facility is causing or contributing to an exceedance of a state or federal ambient air quality standard, increases to these emission rates are not in themselves considered violations of these ambient air quality standards (see Ambient Air Standards Requirements).

AMBIENT AIR QUALITY STANDARDS – STANDARD NO. 2							
Emission Point ID	Emission Rates (lbs/hr)						
	PM <sub>10</sub>	PM <sub>2.5</sub> (24-hour)	PM <sub>2.5</sub> (Annual)	SO <sub>2</sub>	NO <sub>x</sub>	CO	Lead
WFS1	3.20	2.047	1.85	7.0	5.3	550.0	---
COMET	0.39	0.39	0.39	0.04	0.14	5.16	5.58E-04
FIRE LAB	0.22	0.19	0.19	0.02	0.08	2.91	3.15E-04
MS-01	1.13	1.13	1.13	--	--	--	--
WFS1 (burners)	0.0026	0.0026	0.0026	0.0002	0.0323	0.0137	4.66E-02
WTP-01	0.90	0.90	0.90	--	--	--	--

TOXIC AIR POLLUTANTS - STANDARD NO. 8		
POLLUTANT	CAS NUMBER	Facility Wide Emission Rates (lbs/day)
Acetaldehyde	75-07-0	4017.60
Acetic Anhydride	108-24-7	1116.00
Acetonitrile (methyl cyanide)	75-05-8	3906.00
Acrolein	107-02-8	2.79
Acrylamide	79-06-1	0.67
Acrylic Acid	79-10-7	329.22
Acrylonitrile	107-13-1	50.22
Aldicarb	116-06-3	13.39
Allyl Chloride	107-05-1	66.96
p-Aminodiphenyl (4-Aminobiphenyl)	92-67-1	0.00
Ammonium Chloride	12125-02-9	558.00
Aniline	62-53-3	111.60
o-Anisidine	90-04-0	5.58
p-Anisidine	104-94-9	5.58
Antimony Compounds	N/A	5.58
Arsenic	7440-38-2	2.23
Arsenic Pentoxide	1303-28-2	2.23
Benzene	71-43-2	334.80

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TOXIC AIR POLLUTANTS - STANDARD NO. 8		
POLLUTANT	CAS NUMBER	Facility Wide Emission Rates (lbs/day)
Benzidine	92-87-5	0.00
Benzotrichloride	98-07-7	669.60
Benzyl Chloride	100-44-7	55.80
Beryllium	7440-41-7	0.02
Beryllium Oxide	1304-56-9	0.02
Beryllium Sulfate	13510-49-1	0.02
Biphenyl	92-52-4	13.39
Bis (Chloromethyl) Ether	542-88-1	0.07
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	55.80
Bromoform	75-25-2	57.70
1,3-Butadiene	106-99-0	246.64
1-Butanethiol (n-Butyl Mercaptan)	109-79-5	33.48
n-Butylamine	109-73-9	167.40
Cadmium	7440-43-9	0.56
Cadmium Oxide	1306-19-0	0.56
Cadmium Sulfate	10124-36-4	0.45
Calcium Cyanamide	156-62-7	5.58
Caprolactam, dust	105-60-2	55.80
Caprolactam, vapor	105-60-2	1116.00
Captan	133-06-2	55.80
Carbaryl	63-25-2	55.80
Carbon Disulfide	75-15-0	334.80
Carbon Tetrachloride	56-23-5	334.80
Carbonyl Sulfide	463-58-1	27342.00
Catechol	120-80-9	662.90
Chlordane	57-74-9	5.58
Chlorine	7782-50-5	167.40
Chloroacetic Acid	79-11-8	2008.80
2-Chloroacetophenone	532-27-4	16.74
Chlorobenzene	108-90-7	3850.20
Chloroform	67-66-3	558.00
p-Chloronitrobenzene	100-00-5	11.16
Chloroprene	126-99-8	390.60
Chromium(+6) Compounds	N/A	5.58

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TOXIC AIR POLLUTANTS - STANDARD NO. 8		
POLLUTANT	CAS NUMBER	Facility Wide Emission Rates (lbs/day)
Cobalt Compounds	N/A	0.56
Cresols/cresylic acid and mixture	1319-77-3	491.04
m-Cresol	108-39-4	246.64
o-Cresol	95-48-7	246.64
p-Cresol	106-44-5	246.64
Cumene	98-82-8	20.09
Cyanamide	420-04-2	111.60
Cyanic Acid	420-05-3	1116.00
Cyanide	57-12-5	279.00
Cyanoacetamide	107-91-5	279.00
Cyanogen	460-19-5	1116.00
2,4-D, salts and esters	94-75-7	111.60
Diazomethane	334-88-3	4.46
1,2-Dibromo-3-chloropropane	96-12-8	0.11
Dibutylphthalate	84-74-2	55.80
p-Dichlorobenzene	106-46-7	10044.00
3,3-Dichlorobenzidine	91-94-1	0.33
1,3-Dichloropropene	542-75-6	44.64
Dichlorvos	62-73-7	10.09
Diethanolamine	111-42-2	287.93
Diethyl Phthalate	84-66-2	55.80
n,n-Dimethylaniline (n,n-dimethylbenzenamine)	121-69-7	558.00
Diisodecyl Phthalate	2671-40-0	111.60
3,3-Dimethoxybenzidine	119-90-4	0.67
Dimethyl Formamide	68-12-2	669.60
1,1-Dimethyl Hydrazine	57-14-7	11.16
1,2-Dimethyl Hydrazine	540-73-8	11.16
Dimethyl Phthalate	131-11-3	55.80
Dimethyl Sulfate	77-78-1	5.58
4-Dimethylaminoazobenzene	60-11-7	279.00
m-Dinitrobenzene	99-65-0	22.32
2,4-Dinitrotoluene	121-14-2	3.35
4,6-Dinitro-o-cresol and salts	534-52-1	4.46
Diethyl Phthalate	117-84-0	111.60

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TOXIC AIR POLLUTANTS - STANDARD NO. 8		
POLLUTANT	CAS NUMBER	Facility Wide Emission Rates (lbs/day)
1,4-Dioxane (1,4-Diethyleneoxide)	123-91-1	1004.40
Epichlorohydrin (1-Chloro-2,3-Epoxypropane)	106-89-8	111.60
Ethanethiol (Ethyl Mercaptan)	75-08-1	22.32
Ethanolamine	141-43-5	446.40
Ethyl Acrylate	140-88-5	228.78
Ethyl Benzene	100-41-4	9709.20
Ethyl Chloride (Chloroethane)	75-00-3	58924.80
Ethylene Dibromide (Dibromoethane)	106-93-4	1718.64
Ethylene Dichloride (1,2-Dichloroethane)	107-06-2	446.40
Ethylene Glycol	107-21-1	1450.80
Ethylene Imine (Aziridine)	151-56-4	11.16
Ethylene Oxide	75-21-8	22.32
Ethylidene Dichloride (1,1-Dichloroethane)	75-34-3	4519.80
Formaldehyde	50-00-0	33.48
Formamide	75-12-7	1674.00
Formic Acid	64-18-6	502.20
Furfural	98-01-1	446.40
Furfuryl Alcohol	98-00-0	892.80
Glycidaldehyde	765-34-4	167.40
Heptachlor	76-44-8	5.58
Hexachlorobutadiene	87-68-3	2.68
Hexachlorocyclohexane (multiple isomers)	608-73-1	5.58
Hexachlorocyclopentadiene	77-47-4	1.12
Hexachloroethane	67-72-1	108.25
Hexachloronaphthalene	1335-87-1	2.23
Hexamethylene-1, 6-diisocyanate	822-06-0	0.76
Hexamethylphosphoramide	680-31-9	32.36
Hexane	110-54-3	2008.80
Hydrazine	302-01-2	1.12
Hydrochloric Acid	7647-01-0	390.60
Hydrogen Cyanide	74-90-8	558.00
Hydrogen Fluoride	7664-39-3	4.58
Hydrogen Sulfide	7783-06-4	312.48
Hydroquinone	123-31-9	44.64

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POLLUTANT	CAS NUMBER	Facility Wide Emission Rates (lbs/day)
Isophorone	78-59-1	558.00
Isopropylamine	75-31-0	669.60
Kepone (Chlordecone)	143-50-0	0.00
Ketene	463-51-4	10.04
Lead Arsenate	7645-25-2	1.67
Lead(+2) Arsenate	7784-40-9	1.67
Lindane	58-89-9	5.58
Malathion	121-75-5	223.20
Maleic Anhydride	108-31-6	22.32
Manganese Compounds	N/A	55.80
Mercury	7439-97-6	0.56
Methanol (Methyl Alcohol)	67-56-1	2923.92
Methoxychlor	72-43-5	111.60
Methyl Bromide (Bromomethane)	74-83-9	223.20
Methyl Chloride (Chloromethane)	74-87-3	1149.48
Methyl Chloroform (1,1,1-Trichloroethane)	71-55-6	21315.60
Methyl Ethyl Ketone (2-Butanone) (MEK)	78-93-3	32922.00
Methyl Hydrazine	60-34-4	3.91
Methyl Iodide (Iodomethane)	74-88-4	129.46
Methyl Isocyanate	624-83-9	0.51
Methyl Mercaptan	74-93-1	22.32
Methyl Methacrylate	80-62-6	22878.00
Methylamine	74-89-5	669.60
Methylene Biphenyl Isocyanate (MDI)	101-68-8	4.46
4,4'-Methylene Bis-2-chloroaniline	101-14-4	2.46
Methylene Chloride (Dichloromethane)	75-09-2	19530.00
4,4-Methylenedianiline	101-77-9	8.93
Methyl-Isobutyl Ketone (Hexone) (MIBK)	108-10-1	4575.60
Mineral Oil Mist (Paraffin Oil)	8012-95-1	55.80
Mirex	2385-85-5	10044.00
Naphthalene	91-20-3	2790.00
a-Naphthylamine	134-32-7	0.00
b-Naphthylamine	91-59-8	0.00
Nickel	7440-02-0	1.12



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POLLUTANT	CAS NUMBER	Facility Wide Emission Rates (lbs/day)
Nickel Carbonyl	13463-39-3	3.91
Nickel Oxide	1313-99-1	11.16
Nickel Sulfate	7786-81-4	11.16
Nitric Acid	7697-37-2	279.00
p-Nitroaniline	100-01-6	33.48
Nitrobenzene	98-95-3	55.80
4-Nitrobiphenyl	92-93-3	0.00
Nitrogen Mustard	51-75-2	0.00
Nitroglycerin	55-63-0	11.16
p-Nitrophenol	100-02-7	0.00
1-Nitropropane	108-03-2	5022.00
2-Nitropropane	79-46-9	406.22
n-Nitrosodimethylamine	62-75-9	0.00
n-Nitrosomorpholine	59-89-2	11160.00
p-Nitrosophenol	104-91-6	0.00
p-Nitrotoluene	99-99-0	12.28
Octachloronaphthalene	2234-13-1	1.12
Oxalic Acid	144-62-7	22.32
Paraquat	1910-42-5	1.12
Parathion	56-38-2	1.21
Pentachlorophenol	87-86-5	11.16
Phenol	108-95-2	424.08
p-Phenylenediamine	106-50-3	2.23
Phenylhydrazine	100-63-0	446.40
Phosgene (Carbonyl Chloride)	75-44-5	8.93
Phosphine	7803-51-2	4.66
Phosphoric Acid	7664-38-2	55.80
Phosphorus	7723-14-0	1.12
Phthalic Anhydride	85-44-9	67.63
Picric Acid	88-89-1	2.23
Polychlorinated Biphenyls (PCB)	N/A	5.58
Polycyclic Organic Matter	N/A	357.12
b-Propiolactone	57-57-8	16.74
Propoxur (Baygon)	114-26-1	5.58

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POLLUTANT	CAS NUMBER	Facility Wide Emission Rates (lbs/day)
Propylene Dichloride (1,2-Dichloropropane)	78-87-5	3906.00
1,2-Propylene Oxide	75-56-9	558.00
1,2-Propylenimine (2-Methyl Aziridine)	75-55-8	52.12
Pyrethrin I	121-21-1	55.80
Pyrethrin II	121-29-9	55.80
Pyrethrum	8003-34-7	111.60
Quinone	106-51-4	4.46
Rotenone	83-79-4	111.60
Selenium Compounds	N/A	2.23
Sodium Hydroxide	1310-73-2	111.60
Styrene	100-42-5	11885.40
Sulfuric Acid	7664-93-9	22.32
Tetrachlorinated Dibenzo-p-dioxins	1746-01-6	0.00
1,1,2,2-Tetrachloroethane (Acetylene Tetrachloride)	79-34-5	78.12
Tetrachloroethylene (Perchloroethylene)	127-18-4	7477.20
Titanium Tetrachloride	7550-45-0	5580.00
Toluene	108-88-3	4464.00
Toluene Diisocyanate	26471-62-5	0.89
Toluene-2, 4-diisocyanate	584-84-9	0.89
o-Toluidine	95-53-4	97.87
Toxaphene (Chlorinated Camphene)	8001-35-2	5.58
1,2,4-Trichlorobenzene	120-82-1	892.80
1,1,2-Trichloroethane	79-00-5	609.34
Trichloroethylene	79-01-6	15066.00
Triethylamine	121-44-8	462.02
2,2,4-Trimethylpentane (Isooctane)	540-84-1	19530.00
Urethane (Carbamic Acid Ethyl Ester)	51-79-6	11160.00
Vinyl Acetate	108-05-4	392.83
Vinyl Bromide	593-60-2	223.20
Vinyl Chloride	75-01-4	111.60
Vinyl Fluoride	75-02-5	42.41
Vinylidene chloride (1,1-Dichloroethene) (1,1-Dichloroethylene)	75-35-4	42.41
Xylene (isomers and mixture)	1330-20-7	9709.20

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<b>TOXIC AIR POLLUTANTS - STANDARD NO. 8</b>		
<b>POLLUTANT</b>	<b>CAS NUMBER</b>	<b>Facility Wide Emission Rates (lbs/day)</b>
m-Xylene	108-38-3	9709.20
o-Xylene	95-47-6	9709.20
p-Xylene	106-42-3	9709.20
Xylidine	1300-73-8	111.60